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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Seung Kuk Ahn

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EXAMINER

LAO, LUN YI

ART UNIT

PAPER NUMBER

2629

DATE MAILED: 10/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/022,854

Applicant(s)

AHN, SEUNG KUK

Examiner

LUN-YI LAO

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/6/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, "a source sift clock reset unit and a reference clock generator" cited in claims 3 and 5 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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Applicant should provide a drawing as below, a brief description of the drawing and the description of the drawing in the specification.



Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Eto et al(5,301,031).

As to claims 1 and 3, Eto et al teach an LCD display comprising the steps of: receiving a data enable signal(1, R) for indicating a time interval when a video data exists; detecting an enable initiation time of the data enable signal(1, R); generating a reset signal(STH) at the enable initiation time of data signal(1, R); resetting a source shift clock(14 or CKH) for sampling video data(1, R) in response to the reset signal(STH), wherein the source shift clock(14 or CKT) is reset at the enable initiation time in response to the reset signal(STH) (see figures 1-2; column 3, lines 1-50 and column 4, lines 4-12).

As to claim 3, Eto et al teach a driving apparatus for a liquid crystal display comprising a source shift clock reset unit(2, 3) for detecting an enable initiation time of a data enable signal for indicating a time interval when a video signal exists to generate a reset signal; a reference clock generator(14 or CKT) for generating a source shift clock for sampling the video data at the enable initiation time(see figures 1-2; column 3, lines 1-50 and column 4, lines 4-12).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi(6,329,975) in view of Eto et al(5,301,031).

As to claims 1 and 3, Yamaguchi et al teach an LCD display comprising the steps of: receiving a data enable signal(DATA ENABLE SIGNAL) for indicating a time interval when a video data exists; detecting an enable initiation time of the data enable signal; generating a reset signal(see figure 4) at the enable initiation time of data signal(see figures 3-4; column 4, lines 42-55 and column 5, lines 9-37); resetting a source shift

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clock(8) in response to the reset signal(see figures 3-4), wherein the source shift clock(8) is reset at the enable initiation time in response to the reset signal(see figures 2-4; column 4, lines 42-55 and column 5, lines 9-37);

As to claim 3, Yamaguchi et al teach a driving apparatus for a liquid crystal display comprising a source shift clock reset unit(11 or 7) for detecting an enable initiation time of a data enable signal for indicating a time interval when a video signal exists to generate a reset signal(see figure 4); a reference clock generator(8) for generating a source shift clock at the enable initiation time

Yamaguchi fail to disclose a source shift clock for sampling the video signal.

Eto et al teach a source shift clock(7) for sampling the video signal(see figures 1-2; column 3, lines 1-50 and column 4, lines 4-12). It would have been obvious to have modified Yamaguchi with the teaching of Eto et al, so as to provide high display quality without using an external memory.

6. Claims 2 and 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eto et al in view of Sekido et al(5,999,158).

Eto et al fail to disclose a source driving circuit for latching video signal after sampling.

Sikido et al teach a source driving circuit having a latching circuit(4) for latching sampling video signal(see figure 4; column 3, lines 61-68 and column 4, lines 1-4). It would have been obvious to have modified Eto et al with the teaching of Sekido et al, so as to transfer sampling data signal to an LCD display panel(see column 4, lines 2-4).

7. Claims 2 and 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi in view of Eto et al in view of Sekido et al(5,999,158).

Yamaguchi as modified fail to disclose a source driving circuit for latching video signal after sampling.

Sikido et al teach a source driving circuit having a latching circuit(4) for latching sampling video signal(see figure 4; column 3, lines 61-68 and column 4, lines 1-4). It would have been obvious to have modified Yamaguchi as modified with the teaching of Sekido et al, so as to transfer sampling data signal to an LCD display panel(see column 4, lines 2-4).

Allowable Subject Matter

8. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

9. Applicant's arguments with respect to claims 1-5 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Furukoshi(6,791,518) teaches an LCD display comprising a clock reset unit for detecting a data enable signal.

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lun-yi Lao whose telephone number is 571-272-7671. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

September 5, 2006

Lun-yi Lao
Lun-yi Lao
Primary Examiner